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M-TRAC

for rail safety

FINAL ARGUMENT
terminating the

SHOW CAUSE HEARING
on the **GRANGE RECOMMENDATIONS**
before the

RAILWAY TRANSPORT COMMITTEE
of the **CANADIAN TRANSPORT COMMISSION**
concerning

**TRANSPORTATION OF DANGEROUS
COMMODITIES BY RAIL**

july 1981

M-TRAC

Metro Toronto Residents' Action Committee

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FINAL ARGUMENT BY M-TRAC before the Railway Transport Committee of the Canadian Transport Commission on Dominion Day, July 1, 1981, terminating the Show Cause hearing on the Grange recommendations.

Speaker: Harold Morrison, M-TRAC chairman

It should be considered a sad state of affairs that there should be conflict on this very day between the railways and the public. But we now have reached the final stage in these long proceedings and perhaps as we celebrate this Dominion Day, we may have reached the historical turning point in the experience of the Railway Transport Committee and the Canadian Transport Commission.

This, Sir, has been a long and costly process and perhaps in another place and at another time the matter which gives us so much anxiety may have easily been settled around a conference table.

There has been much cost involved in this process but nevertheless, this is part and parcel of our democracy and our process. We must examine every facet and give every party its day in court before we reach a decision.

We are here because of the anxiety and the fears of thousands of people, especially in the Metropolitan area of Toronto, who work and live near these high-density tracks which each day bear more and more of these dangerous products which have become so essential in our way of life.

M-TRAC

Senior Foreign Residents' Action Committee
12 Western Road, Toronto M6T 2S4
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TRAC ADVISORY BY M-TRAC before the Railway Commission, consisting of
the Canadian Transport Commission on Tuesday, July 1, 1981.
concerning the show given during the 1981 demonstration.

President: David Gorman, M-TRAC Chairman

It should be considered a new state of affairs that there
should be conflict on this way day between the railway and the
public. But we have wanted the show stage in some form previously
ings and perhaps as we indicated this situation may be very different
the 1980-1981 campaign plan in the operation of the Railway Transport
Commission and the Canadian Transport Commission.

That, etc., has been a long and costly process and we are
anxious to see an end to the matter which gives us so much
anxiety and how easily from which we have a number of

There has been much time and money in this process but we
cannot, this is not the kind of an industry and we are not
and we are not going to have any more of this kind of thing.



We are aware of the situation of the railway and the
needs of people, especially in the transportation
and the way we have to deal with the situation which
and more of these things which have been in the past
our way in life.

So, it has fallen on M-TRAC, a voluntary organization, to open these proceedings on April 21 and now we are here to close them. On behalf of the many groups in Metropolitan Toronto, we have sought some method of resolution in preventing another Mississauga derailment which, as you may recall, forced the evacuation of almost an entire community.

There appears to have been some suggestion from railway counsel that perhaps the only real support for the recommendations of Mr. Justice Grange came from so-called special interest groups. I think that counsel would like to leave the impression on the Panel that the public generally is not really concerned and that the situation really is being exaggerated by these so-called special interest groups.

Well, I suppose we can tell the railways that these special interest groups include the Metropolitan government of Toronto, the City of Toronto, the Boroughs of East York, Scarborough, the Municipality of Mississauga. And now I understand that the City of Hamilton also has put in a letter supporting the Grange recommendations.

Mr. Chairman, you were right in describing this as an emotional issue. Some 18 months have passed since the Mississauga derailment and the public has seen no action either from the railways or from government parties which would give them any confidence for the future in terms of rail safety.

I can go on and tell you that I find it pitiful to be stopped on the street, as I was in Toronto by one woman who said, "If only you could slow the trains down a little." These people look to the RTC for relief. There was opportunity in the past to improve the situation, but unfortunately, the RTC did not take the expected action. I am referring, of course, to the situation following the 1971 Safety Inquiry. As we stated in our opening remarks on April 21, the railways appear to wield enormous powers. Mind you, they have voiced support for improved safety. But when it comes down to actual expenditures, these assurances seem to disappear.

We have come to think of Toronto as one of the fine new cities of the world. I think one of the railway counsel referred to it as hog-town. Perhaps this particular counsel left for Winnipeg because he thought that one day that CP North Toronto line might become the subject of a major explosion and he had better get the hell out of the area before it happened.

Well, Toronto is not asking for any benefits that would accrue to itself alone. We believe that all the areas of Canada which face the same problems as Toronto must receive consideration. It is on that basis, Sir, that we have examined the evidence before you, the Panel, and have participated in the cross-examination of the many witnesses brought before the hearing.

We have examined this evidence as laymen, without the benefit of legal or technical advantage. We have done this as a public duty, considering that a grave situation has been allowed to develop, bringing with it the potential for enormous dangers to the public.

Sir, there has been much criticism of the Grange recommendations at this hearing. The railways have spent much effort to depreciate the findings of Mr. Justice Grange and to suggest that his proposals lack technical merit. In fact, there has been so much said about Justice Grange's report that we decided to examine it again and to try to discover why, as it has been alleged, he was so badly misled.

I think this rediscovery led us to the conclusion that the Supreme Court justice was not as naive as learned counsel for the railways might lead you to believe. Certainly, he seemed to have erred in offering the figure of 500 as a viable concentration of people for slowing down trains to 25 miles an hour, carrying these hazardous goods in high-density areas. We have agreed that acceptance of that criteria would impose an undue economic burden on the railways and on economic unity.

Well, then, why did Mr. Justice Grange pick this figure? Why did he choose to impose such an undue burden on the railways. I

I think the answer now seems obvious. He knew the inner mind of the railways. He knew they would throw up every possible barrier to the imposition of safety measures which might affect railway profits. And he knew that if he did not impose an extreme penalty, there would be again nothing more than delaying action -- as there was during and following the '71 Safety Inquiry.

Sir, it is the easiest thing to say: Let us establish more committees. These are the sort of delaying tactics we have seen in the past and which we hope will not result from this inquiry.

Sir, there is a need for action and a need for action now. We have all heard the evidence of the railways and the final argument of their counsel cautioning the RTC against proceeding with the Grange proposals which are the subject of this hearing.

We have heard the argument put before you, warning against the enormous costs involved in shifting from plain bearings to roller bearings, improving rolling stock which carries tons of lethal products through the highly-populated cities and installing hot box detectors every 20 miles in the high-density areas, as Mr. Justice Grange recommended.

We have heard the repeated warnings that the results would not mean improved safety but rather increased danger to the public. We would have great congestion on the rail lines and in the marshalling yards; we would have delays in the delivery of essential products and we would have more accidents at grade crossings. And we would all end up simply with more dangerous cargoes on the highways.

When we suggested an alternative approach to the proposed rail slowdown in the high-density areas, you would imagine that the railways might have seized the opportunity to find some acceptable compromise, to provide some measure of relief while reducing the potential cost to the railways, shippers and consumers.



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But you will note, Mr. Chairman, that the railways are not eager to find a compromise. They simply are not eager to undertake any public safety improvements which involve sizable expenditures. You will also note a recent public statement by the Canadian National president on the possibility of closing certain branch lines. At the end of the line, he said, there must be a profit.

You will also note that the Canadian National counsel, Mr. Pye, made a rather oblique reference to our suggestion when he stated in his argument:

"I respectfully submit that if some other population criteria is established, the compounding effect would result in substantially the same impact as set forth in CN's evidence."

The question of where you draw the line can lead to serious consequences without creating any measurable improvement in safety. And then he went on to say that only public perception might be satisfied. But I submit, Mr. Chairman and commissioners, that this is far too serious for perception only. Mr. Chairman, we certainly seek more than perception; we demand more than perception. The public will not be fooled by a few extra hot box detectors thrown around the area. The public will not be satisfied with a little polish on an old shoe while the whole bottom remains unattended.

We suggest to you, Mr. Chairman, that the railways' alternative of marshalling dangerous cargo cars at the head of the train is simply a bit of shoe polish. We submit, Mr. Chairman, that equating the marshalling of such cars at the head of the train with a total Grange package is tantamount to deception.

We looked into the matter further. Just the other day we spoke to Mr. Ludwig Benner at the National Transportation Safety Board in Washington. We asked him about the safety factor in placing the dangerous cargo at the head of the train. He referred to a recent U.S. Federal Railway Administration contract study relating to car placement of hazardous

goods in relation to the magnitude of derailment. This indicated that the latter seven-eighth of a train, that is the back end, is the safest place in the train--that is, next to the last segment. He also referred to a privately-funded study relating to car placement which also indicated that the latter four-fifth of a train is the safest place.

I think this data is borne out by the railways' own evidence. It is not conclusive but, for example, if you take CN-75, it shows crossing accidents. Of the total of 604 accidents in 1976, only in 19 of the 604 did the vehicle strike the train after the tenth car. In 1977, the number of vehicles which struck the train after the tenth car totalled only 17 out of 537. In 1978, the number was 29 out of 540. And so on.

The point is, sir, that while this is not conclusive evidence that the back end of the train is safe, at least it shows that the front end of the train may be more dangerous.

And now there has been a great deal of discussion as to whether speed is a factor in derailment and resultant damage and whether slowing down trains would have any material safety benefit. In other words, does a train speeding through the heart of the city carrying bulk loads of dangerous products mean any more of a menace than any other train carrying non-placard cars?

We have heard random comments during this hearing that speed does not cause accidents. We have also heard that the amount of damage during derailment would be much the same no matter whether the speed is 25, 40 or 60 miles an hour. These statements have given us much concern. We know intuitively that high speeds can be dangerous.

We understand, of course, that in the case of fixed guidance systems speeds may not be much of a problem when the track, topography and train are all in harmony. In such cases, the train is designed for a certain speed. What worries us is that this harmony does not always exist. A lot depends on maintenance, track vigilance. Tracks deteriorate from the pounding from these huge trains conveying loads of product. Invariably, some of the track may deteriorate.

In any case, we are certain that speed is a contributing factor in accidents. We are convinced that the severity of damage increases with the speed of the train.

Now, let us recall some of the evidence before the Panel. Let us recall the evidence of Mr. Ron Sharpe, for example, of Norfolk and Western. On May 14 he said:

"I guess the speed of the train contributes to the number of the cars which would be derailed in a pile-up."

Let us look at the much-discussed CN-24, which is the document prepared for the Inter-Industry Task Force in the United States. On Page 10 we have the statement:

"One of the factors that may affect the probability and severity of derailments is speed."

The report also says that derailments would result in the release of hazardous materials tending to occur at speeds slightly higher than other derailments. It carries a graph which indicates that the highest percentages of rail cars which release hazardous occurred in the 51 to 60 miles per hour range.

You will note from Mr. Justice Grange's Report the suggestion that the train which derailed at Mississauga might have been proceeding at more than 50 miles per hour. I am not sure about this, but the train that derailed at Sundridge a few days ago, with an accompanying explosion, was reported to have been running at 45 to 50 miles per hour.

It is no idle reflection to note that since the hearing began on April 21, we have had a number of derailments and that it is just possible that some of these may have been prevented had the RTC imposed reasonable constraints earlier. This is just a statement we make. We don't blame the RTC for what has happened. It is just possible that some of these things might not have happened.

I suppose if we go back far enough you begin to wonder whether Mississauga might not have happened had adequate action been taken in time.

We make these statements as laymen. We don't accuse anyone. But on reflection, all of us here must be party to the damage which might result if there is no action.

Now, the Canadian National in argument paid a great deal of attention to one of our witnesses, Mr. Sam Cass, and I suppose in turn we should pay attention to some of their witnesses, including Dr. William Harris and George Bartley, the witness for Canadian Pacific. I think if you look closely at their testimony that they acknowledge that speed is a contributing factor in the severity of damage.

Mind you, they both seemed a bit vague when pressed for details, or when we tried to get them to testify as to the amount of severity and the amount of damage, but the simple conclusion must be that a train carrying dangerous bulk is likely to provide more protection to the public by proceeding cautiously through critical high-density areas.

We cannot accept the argument that slow trains will result in more accidents at grade crossings. We realize that some people act impulsively, and I believe these people might act that way no matter whether the train is going at 25, 40 or 50 miles an hour. If these people insist on courting danger, then we must not allow thousands of other people to suffer simply because we want to protect these people who act impulsively.

Of course, in many large cities grade crossings are protected or should be and perhaps the ultimate answer to this problem of crossing accidents is to increase the rate of protection.

Well, then, our organization in the first instance must speak for the people of Toronto. At least for the people of Toronto the need for a slowdown appears to be critical. I think we have presented ample evidence that a derailment similar to that of Mississauga would present enormous difficulties in the heavily-populated downtown area. We believe

we have presented ample evidence of the difficulty of evacuating these many thousands of people who would be trapped by such a chemical spill in the downtown areas.

You have heard the evidence of the East York Fire Chief George Kerfoot who stated on June 11th:

"I sometimes think that this Mississauga thing was a loud and clear message from the Almighty that somebody better get off and do something. We may not be as lucky the next time."

Well, I am not sure where the Almighty stands at this hearing. I am not sure whether He stands on the side of the railways or on the side of the public. But I pray He stands against human suffering.

I think Chief Kerfoot gave us something to think about. We worried and we still worry about the possibility that time might be running out. We know that we were anxious during the hearing for some immediate action. You will note that when Mayor Hazel McCallion of Mississauga appeared, she echoed this anxiety. It wasn't the anxiety of some special interest group, Mr. Chairman and commissioners. I think it was the anxiety which you will agree was conveyed on behalf of many thousands of people.

Now, we have seen that one derailment follows another derailment and these derailments seem to have little impact on the process before us. How soon shall we see some reasonable action? The public cannot be certain. The RTC and the CTC have been given enormous power to regulate the railways but as we stated in our opening remarks on April 21, this power to some extent has been delegated to the railways themselves.

Perhaps the difficulty in this chamber and the one over in Hull is that this process of deliberation takes place at some distance from the actual derailments and the resulting damage. Perhaps it may have some advantage and disadvantage. Maybe we are all involved in emotional paralysis. It may be much easier to judge this process on the

basis of pieces of paper which remain as evidence a more difficult to judge it on the basis of some insight based on your own experience and what you may feel is right for certain areas which may be jeopardized by the situation which exists.

Mr. Chairman, you are now immediately concerned with the Show Cause Order which dealt specifically with three recommendations as part of a total group of recommendations made by Mr. Justice Grange on the basis of protracted investigation of the Mississauga derailment. This in itself was an investigation involving hundreds of people including railway technicians who in some cases acted as advisers to the Inquiry.

Now why specifically would Mr. Justice Grange pick on a slow down speed of 25 miles an hour in order to get these railways to move along in improvements in other fields?

Why did he not pick 20 miles an hour or 30 miles an hour? You will note that the railways were quick to pick up the designated speed and argue that it would cause increased numbers of accidents through harmonic roll.

We heard so much about harmonic roll that we began to wonder whether the learned Justice was out of his mind. How could he have designated such a speed if it would cause so many troubles? It was only through the long process of this hearing that we came to the conclusion that harmonic roll was a bit of a red herring, or maybe a red herring. It came out only through the process of this hearing that the two major railways disclosed that they have largely overcome this problem. But why wouldn't they have said this at the outset? We seemed to have had to drag it out of them.

Was it not largely part and parcel of their strategy to spread as much alarm as possible, to depreciate the Grange recommendations while hypocritically advocating improvements in rail safety?

Was it not part and parcel of the railway strategy to spread such economic alarm over the potential cost of implementing rail safety measures that so many shippers and manufacturers immediately ran to support the railways' position?

Time and again we asked witnesses, shippers and other parties how they arrived at such conclusions so similar to the railways' own conclusions. Largely, the response was that these witnesses simply took the railways' submissions at face value. They had done little investigation of their own. Perhaps the pulp and paper association was an exception. And it was only through cross-examination that some of these witnesses finally agreed that with modification, some of these rail safety measures could be introduced without major impact on their operations.

We may refer specifically to the evidence of Mr. Thomas McTague of the Canadian Industrial Traffic League who was asked on June 3 whether he would oppose the introduction of the Grange recommendations in a limited fashion for certain purposes and he responded that he would have no objection provided the rail service was constant. Consistency was his main problem.

Mr. Chairman, you told Mr. McTague that you were rather surprised to hear him say that it didn't matter much whether the shipments were delayed in a uniform fashion. He replied: Well, Mr. Chairman, a delayed arrival, as long as it is consistent, would not result in any increased inventories since the product is actually enroute.

You will also recall the evidence of Nitrochem witnesses who disclosed that it took the railways about six days to carry their products a distance of about 500 miles . The delays were not because of the Grange recommendations or proposals or anything like that. They were delays caused by the railways' own pattern of movements, such as turnaround time; delays through on-line scheduling; terminal time scheduling; there is fast freight and there is slow freight; there are high-speed and low-speed trains.

Now we have read some textbooks and we find that some railway professors believe that the most economic transport by rail is really at a lower speed carrying bulk cargo on level tracks and over long distances.

Well, we may have digressed a bit. We started asking where Mr. Justice Grange obtained the idea for 25 miles an hour in his slowdown proposal. Well, it may have been more than coincidence that after the

Mississauga derailment, the CTC itself issued a Show Cause Summons with respect to the proposed order requiring a certain number of cars with roller bearings between the locomotives and the dangerous commodity cars.

The CTC at that time threatened a maximum speed of 25 miles an hour was not something that Mr. Justice Grange pulled out of a hat. He must have had a basis for using that figure and that speed designation must have had some bearing within the CTC. It must have had some meaning as a safe measure or it would not have been used.

Now, Mr. Justice Grange also proposed a train limitation of 4,000 feet on hazardous goods trains in the event of failure to comply with other proposed measures. We in M-TRAC did not go so far in our own support largely because we did not want to impose an undue economic burden on the railways despite the fact that it has been shown that a train limitation could increase visibility and safety in hot box detection. We have sought simply to temper our needs to ease an economic burden. We have concluded that a rail slowdown for hazardous goods in critical density areas is a reasonable and moderate request while the process goes on with improving the rolling stock and installing adequate hot box detection.

We believe we have shown in this argument that a rail slowdown carries with it public safety and protection. We believe that it is a technical measure of benefit to the public and in a sense it may prevent some accidents. It also will benefit the railways and, as Mr. Pye would like to believe, there is also a perceived benefit.

Now, one of the railway officials told me privately at this hearing that he simply would not agree to a slowdown because it is a deception in terms of public safety. I wonder, Mr. Chairman, if that was the real reason for the opposition -- or do the railways fear to confront their shareholders with added operating costs rather than fear to confront the people with a so-called deception.

We believe that a slowdown in the critical high-density areas may cost a bit of money but I believe and I think others may also believe

that over the period of years the railways have deliberately and consistently opposed slowdown measures. I believe they covet power to regulate speed and they will resist any attempt to wrest that power from them.

We believe it might have been helpful if the railways had provided some financial calculations based on a moderate introduction of the Grange recommendations. We had thought perhaps in their argument that something would come out which would show some desire to provide some protection at least in highly critical areas. I have gone through the argument and I cannot perceive any measure of compromise.

Instead, we have a statement by Mr. Bowles of Canadian Pacific on page 4800 of the transcript simply stating there is no evidence that speed or length of train contribute to the cause of derailments. He does say:

"Severity within the normal operating range may increase modestly with speed reflecting for example the greater track damage; that increased track damage would lead one to expect."

I suppose there is some kind of a statement in there acknowledging that speed may be a factor, but not much of a factor in the severity of damage.

There is one other factor in the Show Cause Order that we believe requires your attention and that, of course, was the controversial statement that a concentration of population to be protected should be in the range of 500 people or more in approximation to the track. As you know, the Canadian National, perhaps in good faith, simply went off the track taking the boundaries of villages a mile away from the track and including in their calculations.

We have said much about this. We felt there was a bit of deception in including those figures. It seemed to add to the argument that the costs would be an unbearable, and as Commissioner Walter drew out of the witness, it is not only a question of taking the boundaries of the little community a mile away from the track, but the Canadian National didn't

even consider where the density of that population was following that boundary. It could have been a mile and a half from the track, for all we know, or two miles.

It is just a small example of the kind of argument that was brought forward here to resist the introduction of safety measures. We have taken a different approach, again on the basis of reducing costs, by saying, let us concentrate on those areas where in the event of a dangerous chemical spill, it would be difficult to get those people out of that area, and we have brought witnesses before you to prove that argument.

It seems to us there can be no doubt about the merits of that statement. We don't mean that other areas in Canada should not be protected but it is very reasonable to assume, and as we have seen in Sundridge that people can run away from explosions and resulting damage. It is reasonable to ask them to accept that risk more so than to put that same kind of problem on, say, fifty to one hundred thousand or more people who simply have no way of escaping.

We think it is reasonable to ask the railways to accept the financial cost of such a limited application of a slowdown, at least until such time as the improved rolling stock and installation of sufficient numbers of detectors warrant reconsideration of the slowdown.

There may have a question left in the minds of the Commissioners whether we really intend to have a permanent slowdown in effect. Well, frankly, I think it would be a good thing if we could afford that kind of a slowdown in the critical high-density areas. I think it is a reasonable form of security -- if in fact this track must run through this area for some specific economic reason and there is no alternative. Then at least the railways should try to do whatever they can to ease the burden of anxiety on all those people who live and work near that area. We say again, at least let us put in a temporary slowdown until such time as the other improvements are in place.

If in fact the Panel cannot accept that speed has any important bearing on derailments and resulting damage, at least the Commission

might accept the idea that the slowdown may provide an incentive to the railways to get on with their job of putting these improvements in place.

Perhaps that is what Mr. Justice Grange may have had in mind; perhaps that is the only way we will really get the railways to do something and that is to impose such a severe penalty on them that the alternative becomes extremely obvious.

Now, we have been impressed by the argument of the counsel of the Government of Ontario and counsel for the Metropolitan Government of Toronto. We are glad to endorse them and support the thrust of their arguments. There is another point about speed which I might bring to your attention. Of course, you probably have so much evidence now that this final stage probably has no bearing at all on the over-all impact of your immense mountain of paper work which confronts you.

But you will remember we asked the witnesses, especially the American witnesses, whether there are any slowdowns in some communities in the United States and slowly but surely we drew out that for various reasons such slowdowns do exist.

The American railways are able to bear with these slowdowns. We have also dwelt on the question whether slowdowns or reduced speed could have any major bearing in delaying traffic. We found to our amazement that on-line time is only a fraction of turnaround time and that the railways could possibly find some way through increased efficiency to reduce this turnaround time, despite some delays that might occur in the critical high-density areas.

We also noted that particularly in the western provinces there had been a great deal of concern about the impact of a possible slowdown on their vital exports, particularly in grain. I must recall that at the outset, there seemed to be some veiled threat by the railways that grain shipments would have to be held up. Later that threat was removed by statements by the railways that there would be no such delay.

There also has been a great deal of concern that if we put the

Grange recommendations into total effect, there might be a very heavy movement of dangerous chemicals to the highways. It would seem, I must admit, that in some short-haul cases, there might be that temptation but because of tariff differences, it would not be likely over long-haul transport.

I think at one stage Commissioner Magee brought up the question of the whole aspect of philosophy of transportation protection for the railways and the relationship of competition among the various modes of transport. I suppose we would have to conclude that if it became cheaper to move goods by one mode rather than another, there would be a trend to that direction. That would occur through sheer economic situations, though in the transportation of dangerous goods, I think the responsible shippers and manufacturers might think twice about moving their products from the rail to the road simply because of the possible threat of spills in built-up areas.

Also, since we know there is such a sharp tariff difference between track and rail, it would be most likely in any event that the chemicals would stay on the track because there are other factors involved in the transportation including, in many cases, the use of these tank cars as storage cars for chlorine and so on at their final destinations.

So, to conclude that there would be a vast switch to the highways is unrealistic and, more so, would be unrealistic if the Commissioners decided that the way to proceed is to provide some measure of relief at least in the high-density areas, the critical areas.

In such a case, I would suggest that there would be no real danger of a transfer to the highways. Of course, we must consider, too, that the railways in emphasizing the threat of a major switch to the highways keep talking about high-speed truck traffic. As we had heard from Mr. Cass, the likelihood is that there will be increased restraint on the movement of truck traffic, especially on those trucks carrying dangerous products through high-density areas.

Of course, traffic in the high-density areas is generally restricted to certain speeds and not so on the railways.

But we in M-TRAC do believe and subscribe to the idea, as the Ontario Government counsel emphasized, that the dangerous chemicals should remain on the track wherever possible.

Now, we approached this hearing mainly as advocates for some form of relief for those groups for whom we have given our firm commitment that we would do all possible to assist them. We didn't come here with any technical ability, but we have learned a lot, Mr. Chairman, in these last two months and we did try to provide help to the panel by witnesses we put forward, including the chemistry professors, toxicologists, chemists, meteorologists and the other evidence we put forward as appendix to our submission. We hope these people were able to assist you though the field is so difficult, so immense, that I believe you might consider that you hardly know where to begin.

I was concerned by the remarks made by the Chairman to one of the witnesses about longevity in relation to the vast increase in chemical use and the response made by the witnesses which was in effect: We are filling up our hospitals with sick people.

I don't know whether all that would be attributable to the traffic in chemical materials and there is no doubt that generally people are living longer, despite the increased use of chemicals. But there is no doubt in my mind that these vast uses of chemistry and chemical products are leaving us with problems which may be more serious for the generations ahead of us.

There has been a great deal said about equipment modifications and we of course will not try to belabor this area. You have all the evidence you probably need and we believe the RTC will weigh the question whether the improved performance of plain bearings that we have seen after Mississauga is really a trend or something temporary based on the natural increase in vigilance following such a major impact as the Mississauga derailment.

There has been a lot of evidence that these roller bearings provide increased safety. As I say, we are just laymen listening to the

evidence and it struck me that the improvements in plain bearings with proper vigilance and maintenance you can get increased and improved safety with what you have got. If in fact the cost of accelerated retrofits is so enormous that it causes a major blow to the railways. I would believe the RTC in its obligations under Parliament must entertain some serious reservations. But to the extent that you can encourage the railways to move in the direction of improvements and if these improvements can be shown in the form of increased use of roller bearings, then of course we in the public would say it would be beneficial.

We have also heard a lot of evidence that existing improvements have reduced, if not eliminated the possibility of a BLEVE, or something similar to that which happened in Mississauga and we have had conflicting evidence suggesting that punctures if not ruptures are still possible.

So, you have to know where to draw the line -- what is the improvement in rolling stock most beneficial to the public at the lesser cost. It seems almost as though we have taken the side of the railways in this instance. Nevertheless, this must be a realistic approach.

Now, we have been accused of bringing in material which is additional to the Grange recommendations. You will remember we brought in the idea of a gateway inspection system which simply means that a high-speed hazardous train would slow down on entering a high-density area and there would be some human inspection of cars, placards in place, whells, before the train is allowed to proceed through a high-density area, emerging on the other side to pick up its speed again. The Canadian Pacific has come along with the idea, saying, well, that's in effect the hot box detectors. It is more than that.

Of course, we have worried about these hot box detectors. We have asked that they be placed in the high-density areas at 20 miles apart, as Mr. Grange recommended, but we worried about them in a sense that they did not always pick up the hot box before a burn-off. Since we learned that the roller bearing can burn off faster than a plain bearing, it increased our anxieties. So, to say that the mere installation of a hot box detector is really the gateway is in our mind a

bit frivolous. We do hope that some measure can be found to obtain a trained person who could quickly look over that train, allow it to go through, in addition to the hot box detectors.

We also have suggested that where possible the hot box detectors be placed in some critical areas closer than 20 miles apart because we have seen, or heard evidence that the burn-off can occur at a shorter distance than 20 miles.

There is another important aspect to this hearing and one which puzzled us a bit and that is the question of how to define these specific lists of hazardous goods which could reflect the desire of the Panel to give special attention to some products which experts may consider more dangerous than others.

I don't know where these experts will come from since we understand, or given to understand by our own experts, that all chemicals should be treated as dangerous until they are proven otherwise. We talked to some of the people in Washington about this and they say -- I refer to the Hazardous Goods Branch and Mr. Benner who suggested that he has a list of 1,500 chemicals considered dangerous. The railways have put forward this list of 34 to receive special attention and special treatment and I think it was Mr. Bowles who came out with the idea that liquid propane gas should not be one of those special chemicals.

I think, Mr. Chairman, it should be fairly obvious now that 34 list is inadequate. It seems to be based -- we must say this -- based more on economic considerations. The railways don't carry many of these products in bulk. We have paid more attention to the CTC list of 173 as being more reflective of what we might consider dangerous substances.

In looking at that list our people tell us that we should treat that 173 list of substances as categories; that is, these items in themselves may have, if I may call them, children and step-children who should become part of the family. So the end result would be more than 173 specific products.

Mr. Chairman, you did say during the hearing that you expected

that a list would be produced from some other place which I presume would be taken under consideration by the RTC. I am a bit confused whether that list was the one that was finally circulated here or whether there is something else being prepared.

I have gathered from our own sources -- and if it is satisfactory to the Panel, I would rather not disclose the nature of this source -- that in other places, the list of 173 seems to be gaining increasing support. We would hope that the final list, if we may call it a list, of special dangerous products would consist of those items in the CTC's discussion paper.

As a matter of fact, in discussing that requested exemption of the LPG's by Canadian Pacific, we were given to understand that an LPG leak can be one of the worst leaks of all. For many years, LPG was considered one of the most dangerous chemical actors available to society because of its pressure relative to the strength of its can or tank. It could run up to 90 per cent of the working pressure of the tank vis-a-vis the safety valve setting, as opposed to, say, chlorine which is maintained at only 10 per cent of its tank's pressure.

For LPGs not to be included in a special dangerous list is unconscionable and we cannot understand what led CP's learned counsel to request this exclusion. A major problem is that LPG is dispersed quickly and the affected area is much larger than with some other chemicals.

If you have time to read Appendix IV in our own submission, you will see from Drs. Chant and Hall that they are concerned not only with the short-term effects of a release or spill of hazardous chemical substances but with the longer more pervasive effects on our ecosystem and their toxic effects on every level of the food chain, in land and in ourwater and in our soil systems.

As one of our witnesses reminded us, matter is neither created nor destroyed. It all goes somewhere. Not only did all the chlorine and propane in Mississauga go somewhere, it mutated into yet other substances as you can see in Appendix V of our submission, some much more deadly than either of its components, that is, the resulting substances. They all

went somewhere and are residing somewhere and that includes the vinyl chloride spilled in MacGregor.

It is important to note, as did our witness, Dr. Reid, in response to Mrs. Bloodworth, that we don't know what really happened in MacGregor. We only have the best guess statistically and that is in addition to the few facts known. Following the evidence in our submission by Dr. Clive Holloway, we must say we don't really know what happened in Mississauga. We only know to a degree of certainty through Dow's statistical model of the probability of events and even that model did not calculate the amount of chlorine accurately. The state of art is lamentable. The reality, Mr. Chairman and Commissioners, is that the chemical companies cannot be certain what final effects the chemicals and their reactions can have on our environment.

You will recall the evidence of Dr. McArthur about the paucity of research into uncontrolled chemical reactions. Regrettably, there have been few studies involving predictive analysis of dispersal toxicity patterns.

We have the situation, I think, where the U.S. Coast Guard did investigate marine spill vulnerability. But there was even uncertainty in the case of the Somerville, Mass., spill whether the leaking product was handled efficiently.

Well, Mr. Chairman, I think we now have reached the conclusion of this hearing in terms of the presentation of evidence and argument. We can only hope that the Panel will find finally that there should be some action taken in relationship to the Mississauga derailment and the other derailments which have followed since then.

We know that the Panel has the power to act. We know that Parliament has designated this power though we must say critically that it has not always been employed to the benefit of the public. We know that the Panel has a responsibility to the railways but they also have duties to the public and the public does hope that you will carry out those duties.

We had a rather emotional statement by the Mayor of Mississauga, not conveyed through any technical evidence but sufficient to given an indication of the feelings of a number of people who constantly worry whether something will be done at least to ease their anxieties.

We have tried in our meager way to assist you as laymen and we hope that other public bodies elsewhere will follow our example in pursuit of relief when they see an unfortunate situation developing and there appears to be no one ready to act.

It concerned me personally when I saw this development take place and it concerned many other people who have given their time freely and at some great personal cost to try to convey to you this enormous problem which only you can resolve. We hope our efforts have not been in vain. We simply look to you for relief and hope that we have been able to convey a measure of the problem to you.

Thank you, Mr. Chairman.

THE CHAIRMAN: Thank you, Mr. Morrison. This brings us to the conclusion of argument by all parties. On behalf of the Panel, I would like to take this opportunity to once again thank all of the counsel and Mr. Morrison for their very great assistance to us in the serious problem that we are considering.
